IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: SEKIGUCHI et al.

Appl. No.: unassigned   Group: Unassigned

Filed: March 4, 2002   Examiner: Unassigned

For: VIDEO ENCODER, VIDEO DECODER, VIDEO
             ENCODING METHOD, VIDEO DECODING METHOD
             AND VIDEO DECODING SYSTEM

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents   March 4, 2002
Washington, D.C. 20231

Dear Sir:

The following preliminary amendments and remarks are respectfully submitted in connection with the above-identified application.

IN THE CLAIMS:

Please cancel claims 1-18 without prejudice or disclaimer of the subject matter contained therein.

Please add new claims 19-30 as follows:

-- 19.   A video decoder for decoding an encoded bitstream of video data, comprising:

a motion compensation unit for calculating a position for a sample image portion with a motion vector in the bitstream, and rounding the calculated position with a rounding information, the rounding information indicating accuracy for rounding and being decoded from the bitstream; and

an image reconstruction unit for reconstructing a decoded image portion of the video data from the sample image portion.

20.   The video decoder according to claim 19, wherein the motion compensation unit employs plural motion vectors to transform a reference portion into a transformed image portion as the reference image portion, the reference image portion being decoded from the encoded bitstream.

21.   The video decoder according to claim 20, wherein the motion compensation unit magnifies the reference image portion based on the motion parameters to produce the sample image portion.

22.   The video decoder according to claim 20, wherein the motion compensation unit rotates the reference image portion based on the motion parameters to produce the sample image portion.

23.   The video decoder according to claim 19, wherein the rounding information indicates one of half-pel precision and quarter-pel precision.

24.　The video decoder according to claim 19, wherein the encoded bitstream is formatted by MPEG video format.

25.　A video decoding method for decoding a bitstream of video data, comprising:

a step for calculating a sample position on a reference image portion with a motion vector, the motion vector being comprised in the bitstream;

a step for rounding the calculated position according to rounding information, the rounding information being extracted from the bitstream;

a step for producing a decoded image from the reference image portion indicated by the calculated position rounded by the step for rounding.

26.　The video decoding method according to claim 25, wherein the step for calculating employs plural motion vectors.

27.　The video decoding method according to claim 26, wherein the step for calculating calculates the sample position for each pel so that the calculated sample positions are rotated with respected to positions of pels in the decoded image.

28.　The video decoding method according to claim 25, wherein the step for calculating calculates the sample position for each pel so that the calculated sample positions are magnified with respect to portions of pels in the decoded image.

29.   The video decoding method according to claim 25, wherein the rounding information indicates either a half-pel precision or a quarter-pel precision.

30.   The video decoding method according to claim 25, wherein the bit stream is formatted as MPEG.   --
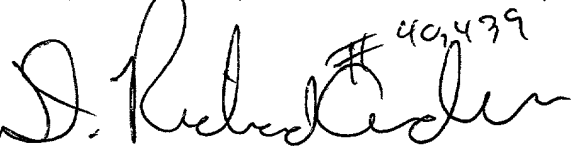
REMARKS

Claims 19-30 have been added.

If the Examiner has any questions concerning this application, the Examiner is requested to contact Mark E. Olds, Registration No. 46,570, at (703) 205-8000 in Northern Virginia.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Very truly yours,

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By
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 19-30 have been added.